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| <b>TRANSMITTAL FORM</b>                  |   | Application Number     | 09/607,604 |
|  |   | Filing Date            | 06/30/2000 |
|  |   | First Named Inventor   | Allison    |
|  |   | Group Art Unit         | 2817       |
|  |   | Examiner Name          | Cathey, D. |
| Total Number of Pages in This Submission | 5 | Attorney Docket Number | PD-00W014  |

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**ENCLOSURES (check all that apply)**

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| Remarks  |   |   |

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

|                         |                        |
|-------------------------|------------------------|
| Firm or Individual name | Leonard A. Alkov, Esq. |
| Signature               |                        |
| Date                    | 01/10/2002             |

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PATENT  
PD-00W014

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
ALLISON et al. ) Art Unit: 2817  
Serial No. 09/607,604 ) Examiner: Cathey, D  
Filed: 06/30/2000 )  
For: MULTI-BIT PHASE SHIFTERS )  
USING MEM RF SWITCHES )

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FEB 14 2002  
EXAMINER  
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J. Cathey  
D. Cathey

RESPONSE TO OFFICE ACTION

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

In response to the Office Action mailed October 10, 2001, kindly amend the application as follows:

IN THE SPECIFICATION

Amend the paragraph bridging pages 8-9 to the following:

--In accordance with an aspect of the invention, a new class of switched line phase shifter configurations using RF MEM switches is provided. FIG. 4A illustrates a schematic of a 1 bit, hybrid switched line phase shift section 100, or "unit cell." Like conventional PIN diode and FET switched phase shifters, the phase shifter is realized by switching in different lengths of transmission lines (FIG. 4). Unlike PIN diode and FET switches, DC bias used to actuate the metal-metal RF MEMS switches is not coupled to the RF transmission line. This embodiment of the unit cell is fabricated on a low-loss substrate 102, e.g. alumina. A conductor pattern is fabricated on the top